

IN THE CLAIMS

Please amend the claims as follows:

1. (Canceled)

2. (Currently Amended) A database access control method for performing access control on a database in response to a request from a user apparatus through cooperation between a database access control apparatus and a proxy process server apparatus, comprising:

sending, in the database access control apparatus, an address of a usable proxy process server apparatus to the user apparatus in response to the request from the user apparatus;

connecting the user apparatus to the proxy process server apparatus of the address to make a database access request;

making, in the proxy process server apparatus, a database process request to the database access control apparatus according to the database access request from the user apparatus;

performing, in the database access control apparatus, a process on the database in response to the database process request from the proxy process server apparatus, and ~~sends~~ sending a process result to the proxy process server apparatus; and

performing, in the proxy process server apparatus, an additional process on the process result sent from the database access control apparatus, and sending an additional process result to the user apparatus;

generating, in the database access control apparatus when sending the address of the proxy process server apparatus to the user apparatus, an access key based on a user ID of the user apparatus, ~~stores~~ storing the access key and a server ID of the proxy process server

apparatus in a storing part of the database access control apparatus associating the access key with the server ID and ~~sends~~ sending the access key and the address to the user apparatus;

sending, in the user apparatus, the access key to the proxy process server apparatus when making the database access request to the proxy process server apparatus;

sending, in the proxy process server apparatus, the access key and the server ID of the proxy process server apparatus to the database access control apparatus when making the database process request to the database access control apparatus; and

determining, in the database access control apparatus, whether an access key the same as the access key received from the proxy process server apparatus exists in the storing part, if the access key exists in the storing part, determining whether an ID, associated with the access key, that is the same as the server ID received from the proxy process server apparatus exists in the storing part, and ~~executes~~ executing an access to data in the database within a limit permitted for the user ID corresponding to the access key only if the ~~access-key~~ server ID exists in the storing part.

3-4. (Canceled)

5. (Currently Amended) A database access control apparatus for performing access control on a database in response to a request from a user apparatus through cooperation with a proxy process server apparatus, comprising:

means for instructing the user apparatus to connect to the proxy process server apparatus by sending an address of a usable proxy process server apparatus to the user apparatus in response to a request from the user apparatus;

means for performing a process on the database in response to a database process request from the proxy process server apparatus, and sending a process result to the proxy process server apparatus;

means for generating an access key based on a user ID of the user apparatus, storing the access key and a server ID of the proxy process server apparatus in a storing part of the database access control apparatus associating the access key with the server ID and sending the access key and the address to the user apparatus when sending the address of the proxy process server apparatus to the user apparatus;

means for receiving the access key and the database process request from the proxy process server apparatus, and determining whether an access key the same as the access key received from the proxy process server apparatus exists in the storing part, if the access key exists in the storing part, determining whether an ID, associated with the access key, that is the same as the server ID received from the proxy process server apparatus exists in the storing part; and

means for executing an access to data in the database within a limit permitted for the user ID corresponding to the access key only if the server ID ~~access key~~ exists in the storing part.

6. (Original) The database access control apparatus as claimed in claim 5, wherein, the database access control apparatus determines whether the user apparatus is in a state of being connected to the proxy process server apparatus in addition to performing determination of the access key, and performs the access to the data in the database only if the user apparatus is in the state of being connected to the proxy process server apparatus.

7-8. (Canceled)

9. (Currently Amended) A computer readable storage medium encoded with a program for causing a computer to execute a database access control process for performing access control on a database in response to a request from a user apparatus through cooperation with a proxy process server apparatus, the program causing the computer to execute a step comprising:

instructing the user apparatus to connect to the proxy process server apparatus by sending an address of a usable proxy process server apparatus to the user apparatus in response to a request from the user apparatus;

performing a process on the database in response to a database process request from the proxy process server apparatus, and sending a process result to the proxy process server apparatus;

generating an access key based on a user ID of the user apparatus, storing the access key and a server ID of the proxy process server apparatus in a storing part of the database access control apparatus associating the access key with the server ID and sending the access key and the address to the user apparatus when sending the address of the proxy process server apparatus to the user apparatus;

receiving the access key and the database process request from the proxy process server apparatus, and determining whether an access key the same as the access key received from the proxy process server apparatus exists in the storing part, if the access key exists in the storing part, determining whether an ID, associated with the access key, that is the same as the server ID received from the proxy process server apparatus exists in the storing part;
and

executing an access to data in the database within a limit permitted for the user ID corresponding to the access key only if the server ID ~~access key~~ exists in the storing part.

10. (Previously Presented) The computer readable storage medium as claimed in claim 9, the program causing the computer to execute a step comprising:

determining whether the user apparatus is in a state of being connected to the proxy process server apparatus in addition to performing determination of the access key, and performing the access to the data in the database only if the user apparatus is in the state of being connected to the proxy process server apparatus.

11-13. (Canceled)

14. (Previously Presented) The database access control method as claimed in claim 2, further comprising:

overwriting or erasing, in the database access control apparatus, the access key stored in the storing part after performing the process on the database in response to the database process request from the proxy server apparatus.

15. (Previously Presented) The database access control method as claimed in claim 2, further comprising:

overwriting or erasing, in the database access control apparatus, the access key stored in the storing part when the database access control apparatus is accessed by the user apparatus next.

16. (Previously Presented) The database access control method as claimed in claim 2, further comprising:

overwriting or erasing, in the database access control apparatus, the access key stored in the storing part when the database access control apparatus receives a next request from the user apparatus.

17. (Previously Presented) The database access control apparatus as claimed in claim 5, further comprising:

means for overwriting or erasing the access key stored in the storing part of the database access control apparatus after the database access control apparatus performs the process on the database in response to the database process request from the proxy server apparatus.

18. (Previously Presented) The database access control apparatus as claimed in claim 5, further comprising:

means for overwriting or erasing the access key stored in the storing part of the database access control apparatus when the database access control apparatus is accessed by the user apparatus next.

19. (Previously Presented) The database access control apparatus as claimed in claim 5, further comprising:

means for overwriting or erasing the access key stored in the storing part of the database access control apparatus when the database access control apparatus receives a next request from the user apparatus.

20. (Previously Presented) The computer readable storage medium as claimed in claim 9, the program causing the computer to further execute a step comprising:

overwriting or erasing the access key stored in the storing part of the database access control apparatus after the database access control apparatus performs the process on the database in response to the database process request from the proxy server apparatus.

21. (Previously Presented) The computer readable storage medium as claimed in claim 9, the program causing the computer to further execute a step comprising:

overwriting or erasing the access key stored in the storing part of the database access control apparatus when the database access control apparatus is accessed by the user apparatus next.

22. (Previously Presented) The computer readable storage medium as claimed in claim 9, the program causing the computer to further execute a step comprising:

overwriting or erasing the access key stored in the storing part of the database access control apparatus when the database access control apparatus receives a next request from the user apparatus.

23. (Currently Amended) A system, comprising:

a database access control apparatus configured to send an address of a usable proxy process server apparatus to a user apparatus in response to a request from the user apparatus;

the user apparatus is configured to connect to the proxy process server apparatus of the address to make a database access request;

the proxy process server apparatus is configured to make a database process request to the database access control apparatus according to the database access request from the user apparatus;

the database access control apparatus is configured to perform a process on the database in response to the database process request from the proxy process server apparatus, and is configured to send a process result to the proxy process server apparatus; and

the proxy process server apparatus is configured to perform an additional process on the process result sent from the database access control apparatus, and is configured to send an additional process result to the user apparatus,

wherein the database access control apparatus is configured to generate an access key based on a user ID of the user apparatus, to store the access key and a server ID of the proxy process server apparatus in a storing part of the database access control apparatus associating the access key with the server ID and to send the access key and the address to the user apparatus,

the user apparatus is configured to send the access key to the proxy process server apparatus when making the database access request to the proxy process server apparatus,

the proxy process server apparatus is configured to send the access key and the server ID of proxy process server apparatus to the database access control apparatus when making the database process request to the database access control apparatus, and

the database access control apparatus is configured to determine whether an access key the same as the access key received from the proxy process server apparatus exists in the storing part, if the access key exists in the storing part, determining whether an ID, associated with the access key, that is the same as the server ID received from the proxy process server apparatus exists in the storing part, and to execute an access to data in the database within a limit permitted for the user ID corresponding to the access key only if the server ID access key exists in the storing part.